UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,905	01/17/2002	Scott Aguais	D3398-00033CIP	1722

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EXAMINER
GRAHAM, CLEMENT B

ART UNIT	PAPER NUMBER
3692	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/051,905	AGUAIS ET AL.
	Examiner	Art Unit	
	Clement B. Graham	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 January 2007</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1. Claims 1-7 remained pending and claims 8-11 has been added.

Claim Rejections - 35 USC § 112

2   The following is a quotation of the second paragraph of 35 U.S.C. 112:
      The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1, is are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
      In particular, Claim 1, recites the word [" adapted to"].

However this language fails to distinctly claim Applicant's invention because the scope of the claim is unclear. Moreover the specification fails to clarify, the meaning of the limitation.

Because a • **Claim limitations that employ phrases of the type•** " Able to be, so as to be Able, Able to be connected, "At the time of" prohibiting any subsequent use of the method" and on the basis of taking into account" are typical of claim limitations which may not distinguish over prior art. It has been held that the recitation that an element is " adapted to" perform or is capable of" performing a function is not a positive limitation but only requires the ability to so perform.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless –
 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-11, are rejected under 35 U.S.C. 102(e) as being anticipated by Freeman et al(Hereinafter Freeman US Patent No: 6, 249, 775).

As per claim 1, Freeman discloses a system for valuing and managing the risk of a plurality of credit instruments, said system comprising:

a) a database for storing credit instrument data;

b) a first calibration engine connected to said database, wherein said first calibration engine generates calibration parameters from said credit instrument data(see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

c) a second pricing engine connected to said database and said first calibration engine, wherein said second pricing engine is adapted to value said one or more credit instruments according to no-arbitrage financial principles, wherein at least one of a net present value and a par-spread Is calculated for each of said one or more credit instruments using current market data(see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

d) a third engine connected to said second pricing engine for performing simulation-based computations (see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

e) a fourth risk engine connected to said second pricing engine and said third engine for computing a plurality of risk and reward metrics; and

f)   a report generator connected to said fourth risk engine for generating reports for use in managing risk. (Note abstract and see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67).

As per claim 2, Freeman discloses wherein at least of said plurality of credit instruments is a loan. (see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

As per claim 3, Freeman discloses further comprising at least one input data module for storing data relating to credit instruments in said database. (see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

As per claim 4,   Freeman discloses further comprising a portfolio hierarchy server. (see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

As per claim 5,   Freeman discloses wherein , said first calibration engine comprises:

a) a first module for generating a one or more basis instruments from input data relating to said one or more credit instruments, wherein said input data comprises at least one of prices, ratings, sectors, and terms and conditions;

b) a second module for generating a first term structure of risk free zero prices and a risk-neutral process for interest rates from one or more basis instruments(see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

c) a third module for generating one or more basic spread matrices from said one or more basis instruments and said first term structure of risk-free zero prices;

d) a fourth module for generating a second term structure of risk-neutral transition matrices and at least one smoothed credit spread matrix using said first term structure of risk-free zero prices, said module also adapted to develop generators using a transition matrix manager(see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

e) a fifth module for generating a third term structure of riskneutral transition matrices for a specific named obligor from said at least one smoothed credit spread matrix, said first term structure of risk-free zero prices, and said second term structure of risk-neutral transition matrices; and

f) a sixth module for generating a plurality of spread volatility matrices. (see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67).

As per claim 6, Freeman discloses wherein a at least one of said modules of said calibration engine generates data subsequently stored in a Mark-to-Future cube. (see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67).

As per claim 7, Freeman discloses wherein said second pricing engine comprising:

a) a first module for defining a state space;

b) a second module for generating a state space by modeling the underlying economic behavior driving the exercise of embedded options and other structural features of said plurality of credit instruments(see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

c) a third cash flow generation module for generating cash flows for said plurality of credit instruments, whereby said credit instruments may be subject to different prepayment or credit state assumptions; and

d) a fourth module connected to said third cash flow generation module for generating a plurality of valuation attributes from said generated cash flows. (see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67).

As per claim 8, Freeman discloses where the net present value of a credit instrument is calculated by performing a valuation of a plurality of cash flows for the credit instrument. (see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

As per claim 9, Freeman discloses wherein the said valuation of said plurality of cash flows is performed using a lattice valuation technique.

As per claim 10, Freeman discloses where said valuation of said plurality of cash flows is performed using Monte Carlo simulation technique. (see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67).

As per claim 10, Freeman discloses wherein the par spread of a credit instrument is calculated by determining one or more spreads such that the net present value of the credit instrument equals a specified value. (see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67).

As per claim 11, Freeman discloses wherein the par spread of a credit instrument is calculated by determining one or more spreads such that the net present value of the

credit instrument equals a specified value. (see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67).

CONCLUSION

5. In response to Applicant's arguments that filed 1/8/2007 has been fully considered but they are not persuasive for the following reasons.

6. In response to Applicant's arguments that Freeman fail to teach or suggest " value of the pools of loans is made and determination whether a pool of loans should be bought or sold based on potential future defaults rates and buying or selling a particular pool of loans that might influenced by a change in the price offered to pay for it and is not directed to valuing loans, The Examiner disagrees with Applicant's because the limitation were addressed as stated.

Freeman discloses a) a database for storing credit instrument data;

b) a first calibration engine connected to said database, wherein said first calibration engine generates calibration parameters from said credit instrument data(see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67)

c) a second pricing engine connected to said database and said first calibration engine, wherein said second pricing engine is adapted to value said one or more credit instruments according to no-arbitrage financial principles, wherein at least one of a net present value and a par-spread Is calculated for each of said one or more credit instruments using current market data see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67 d) a third engine connected to said second pricing engine for performing simulation-based computations (see column 2 lines 54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67 e) a fourth risk engine connected to said second pricing engine and said third engine for computing a plurality of risk and reward metrics; and f) a report generator connected to said fourth risk engine for generating reports for use in managing risk. (Note abstract and see column 2 lines54-67 and column 3 lines 1-67 and column 4 lines 49-67 and column 5-18 lines 1-67.

Therefore it is inherently clear that Applicant's claimed limitations are addressed within the teachings of Freeman.

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
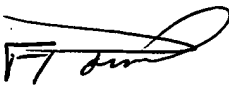
8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 571-272-6795. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 703-308-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CG

March 23, 2007

FRANTZY POINVIL
PRIMARY EXAMINER